

NAEYC and KYTS 6

NAEYC: Technology and Young Children—Ages 3-8

There is considerable research that points to the positive effects of technology on children's learning and development (Clements 1994);

However, research indicates that, in practice, computers **supplement** and **do not replace** highly valued early childhood activities and materials, such as art, blocks, sand, water, books, exploration with writing materials, and dramatic play.

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- Research indicates that computers can be used in developmentally **appropriate** ways beneficial to children and also can be **misused**, just as any tool can (Shade & Watson 1990).

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Developmentally appropriate software offers opportunities for collaborative play, learning, and creation.

However, educators must use professional judgment in evaluating and using this learning tool appropriately.

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1. Professional judgment by the teacher is required to determine if a specific use of technology is **age** appropriate, **individually** appropriate, and **culturally** appropriate.
- **Good teaching practices** must always be the guiding goal when selecting and using new technologies.

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- Developmentally appropriate software engages children in creative play, mastery learning, problem solving, and conversation.
- The children control the pacing and the action.
- They can repeat a process or activity as often as they like and experiment with variations.
- They can collaborate in making decisions and share their discoveries and creations (Haugland & Shade 1990).

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- Research demonstrates that when working with a computer children prefer **working with one or two partners over working alone** (Lipinski et al. 1986; Rhee & Chavmagri 1991; Clements, Nastasi, & Swaminathan 1993).
- They seek help from one another and seem to **prefer help from peers** over help from the teacher (King & Alloway 1992; Nastasi & Clements 1993).

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- Using the computer allows children to:
 - Share
 - Collaborate
 - Communicate
 - Interact

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- To effectively Use Technology, teachers need:
 - Time
 - Training
 - Modeling
 - Access
- The opposite of these exist as barriers to integration:
- 1st order (external): lack of access, time, training, cost and 2nd order (internal) teachers attitudes (Ertmer, 1999).

Kentucky Teacher Standard #6

- **6.1 Uses available technology to design and plan instruction.**
- **6.2 Uses available technology to implement instruction that facilitates student learning.**
- **6.3 Integrates student use of available technology into instruction.**
- **6.4 Uses available technology to assess and communicate student learning.**
- **6.5 Demonstrates ethical and legal use of technology.**